Listing and Amendments to the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application:

Claims 1-7 (cancelled)

8. (currently amended) A computer implemented method of generating metadata corresponding to the translational motion of a camera for a sequence of images, said method comprising the steps of:

estimating ~~a~~ values corresponding to ~~a~~ camera motion types for ~~an image~~ said sequence of images, wherein said values ~~is~~ are related to the translational motion of a camera for ~~at least one of~~: a track left operation, a track right operation, a boom down operation, a boom up operation, a dolly forward operation, ~~and~~ a dolly backward operation, a roll clockwise operation, and a roll anticlockwise operation; and

generating said metadata by determining said values for each said camera motion type by calcuating a ratio that corresponds to a length of time a specific motion type occurs for said sequence of images divided by a time length corresponding to said sequence of frames. ~~a fraction corresponding to said image, wherein said fraction is either:~~

~~A. a fraction of the image that is uncovered due to said camera motion type;~~

~~B. a fraction of the image that is covered due to said camera motion type.~~

9. (previously presented) The method of claim 8, wherein said generated metadata is generated by an operation of: determining an average of a

displacement of feature points by comparing the image to a second image due to said motion type.

Claim 10 (cancelled)

11. (currently amended) The method of claim 8, wherein said metadata is expressed in an MPEG-7 compatible format. ~~unified modeling language format.~~

12. (currently amended) A computer implemented method of using metadata corresponding to the translation motion of a camera, said method comprising the steps of:

processing said metadata, wherein said metadata corresponds to a camera motion type for an image, wherein said value is related to the translational motion of a camera for at least one of: a track left operation, a track right operation, a boom down operation, a boom up operation, a dolly forward operation, and a dolly backward operation a roll clockwise operation, and a roll anticlockwise operation; and

using said metadata for an application selected from at least one of: indexing said image, searching for an image with metadata similar to said image, and a query operation.

13. (currently amended) A signal comprising information representative to the translational motion of a camera for a sequence of frames, said signal comprising:

a first segment indicating a time interval for corresponding to a camera motion type:

a second segment indicating a length of time for which the camera motion type occurs compared to a total length of time for said sequence of frames; and

a third segment indicating said camera motion type, wherein

said signal is capable of being stored on a storage medium

said signal is represented as metadata that is capable of used for a computer application selected from at least one of: indexing said image, searching for an image with metadata similar to said image, and a query operation, and

said signal is compatible with an MPEG-7 data format.

14. (previously presented) The signal of claim 13, wherein said camera motion type is selected from at least one of: a track left operation, a track right operation, a boom down operation, a boom up operation, a dolly forward operation, a dolly backward operation; a track left operation, a track right operation, a pan left operation, a pan right operation, a tilt up operation, a tilt down operation, a roll clockwise operation, a roll counterclockwise operation, zoom in operation, and a zoom out operation.

15. (previously presented) The signal of claim 13, comprising:

a fourth segment indicating a horizontal position of a focus operation; and

a fifth segment indicating a vertical position of a focus operation, wherein

said fourth and fifth segment correspond to the point in a image where a plurality of camera motion types including said camera motion type with their respective directions converge.

16. (previously presented) The signal of claim 13, comprising:

a fourth segment indicating a horizontal position of a focus operation; and

a fifth segment indicating a vertical position of a focus operation, wherein

said fourth and fifth segment correspond to the point in a image where a plurality of camera motion types including said camera motion type with their respective directions diverge.

17. (new) The method of Claim 12, wherein said metadata is representative of either two different operating modes:

a mixture mode where global information about at least two camera motion parameters are described in said metadata and temporal information about said at least two camera motion parameters is not part of said metadata; and

a non-mixture mode where a union of at least two pure camera motion types are described within a certain time window.

18. (new) The signal of Claim 13, wherein said metadata in said signal is representative of either two different operating modes:

a mixture mode where global information about at least two camera motion parameters are described in said metadata and temporal information about said at least two camera motion parameters is not part of said metadata; and

a non-mixture mode where a union of at least two pure camera motion types are described within a certain time window.